TRANSLATION

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 6095/93/71	**FOR FURTHER ACTION**	See Form PCT/IPEA/416
International application No. PCT/EP2004/013004	International filing date *(day/month/year)* 17.11.2004	Priority date *(day/month/year)* 20.11.2003
International Patent Classification (IPC) or national classification and IPC H02K13/10		
Applicant KOLEKTOR GROUP D.O.O.		

1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.

2. This REPORT consists of a total of 6 sheets, including this cover sheet.

3. This report is also accompanied by ANNEXES, comprising:

   a. ☒ *(sent to the applicant and to the International Bureau)* a total of 7 sheets, as follows:

      ☒ sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).

      ☐ sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.

   b. ☐ *(sent to the International Bureau only)* a total of (indicate type and number of electronic carrier(s))

      _____, containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).

4. This report contains indications relating to the following items:

☒	Box No. I	Basis of the report
☐	Box No. II	Priority
☐	Box No. III	Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
☐	Box No. IV	Lack of unity of invention
☒	Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
☐	Box No. VI	Certain documents cited
☐	Box No. VII	Certain defects in the international application
☒	Box No. VIII	Certain observations on the international application

Date of submission of the demand	Date of completion of this report
Name and mailing address of the IPEA/EP Facsimile No.	Authorized officer Telephone No.

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.
PCT/EP2004/013004

Box No. I Basis of the report

1. With regard to the **language**, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ This report is based on translations from the original language into the following language _____, which is the language of a translation furnished for the purposes of:

☐ international search (Rule 12.3 and 23.1(b))

☐ publication of the international application (Rule 12.4)

☐ international preliminary examination (Rule 55.2 and/or 55.3)

2. With regard to the **elements** of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:

☐ the international application as originally filed/furnished

☒ the description:

pages 1-17 as originally filed/furnished

pages* _____ received by this Authority on _____

pages* _____ received by this Authority on _____

☒ the claims:

nos. _____ as originally filed/furnished

nos.* _____ as amended (together with any statement) under Article 19

nos.* 1-22 received by this Authority on 01.06.2005 with letter of 01.06.2005

nos.* _____ received by this Authority on _____

☒ the drawings:

sheets 1/5-5/5 as originally filed/furnished

sheets* _____ received by this Authority on _____

sheets* _____ received by this Authority on _____

☐ a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.

3. ☐ The amendments have resulted in the cancellation of:

☐ the description, pages _____

☐ the claims, nos. _____

☐ the drawings, sheets/figs _____

☐ the sequence listing *(specify)*: _____

☐ any table(s) related to sequence listing *(specify)*: _____

4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

☐ the description, pages _____

☐ the claims, nos. _____

☐ the drawings, sheets/figs _____

☐ the sequence listing *(specify)*: _____

☐ any table(s) related to sequence listing *(specify)*: _____

* *If item 4 applies, some or all of those sheets may be marked "superseded."*

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.
PCT/EP2004/013004

Box No. V **Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

1. Statement

Novelty (N)	Claims	1-22	YES
	Claims		NO
Inventive step (IS)	Claims	1-22	YES
	Claims		NO
Industrial applicability (IA)	Claims	1-22	YES
	Claims		NO

2. Citations and explanations (Rule 70.7)

This report makes reference to the following document:

D1: PATENT ABSTRACTS OF JAPAN, Vol. 1997, No. 06, 30 June 1997 (1997-06-30) & JP 09 051659 A (ASMO CO LTD), 18 February 1997 (1997-02-18)

1. Document D1 is regarded as the prior art closest to the subject matter of claim 1.

Document D1 discloses in figure 5(c), in connection with figure 2, a commutator for an electric machine, the commutator comprising a support (3) produced from an insulating moulded compound, a plurality of metallic conductor segments (2) uniformly arranged on the support, around the commutator axis, with connection elements arranged thereon for a rotor winding (see figure 2), as well as an anti-interference device (6) to which the conductor segments (2) are connected in an electroconducting manner. The anti-interference device comprises a number of individual anti-interference elements (6) which corresponds to the number of conductor segments, the anti-interference elements (6) being arranged around the commutator axis, and the same number

of contact bridges (7a), each contact bridge interconnecting two adjacent anti-interference elements (6) in an electroconducting manner (see paragraphs [0019] and [0022]).

Each of the contact bridges (7a) comprises two branches (71a) connected with the two associated anti-interference elements (6) in an electroconducting manner. Since the contact bridges are designed as springs (see abstract, "resilient body") the branches naturally yield towards one another in the circumferential direction. Moreover, the branches are oriented (radially) "inwards" in relation to part (5).

The contact bridges (7a) comprise a base section (72a) connected with the associated conductor segment in an electroconducting manner. The base section is oriented outwards in relation to the conductor segments (i.e. the base section is located radially outside of the support).

The subject matter of claim 1 differs from the commutator described in D1 only in that the contact bridges are welded or glued in the area of their branches to the associated anti-interference elements and in the area of their base section to the associated conductor segments.

The technical effect of this feature is a more robust commutator.

This feature is known *per se*, but would not be considered by a person skilled in the art proceeding from D1 because it goes against the general teaching of D1 (see D1,

paragraph [0008]).

The subject matter of claim 1 of the present application therefore involves an inventive step (PCT Article 33(3)).

2. The subject matter of claim 18 of the present application also involves an inventive step (PCT Article 33(3)) because this process claim includes all the corresponding features of claim 1.

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Box No. VIII Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

1. The terms "inwards" and "outwards" are unclear because no reference is given for interpreting their meaning ("inwards" or "outwards" of what?). Claim 12 is thus unclear (PCT Article 6).

2. This lack of clarity is even more important because the corresponding technical feature is supposed to be at the origin of the technical effect of the invention, i.e. the small size of the commutator.